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Article paper

Doctor in the sky: Medico-legal issues during in-flight emergencies

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Abstract

More people are travelling by air and in-flight medical emergencies are becoming more common. Some in-flight emergencies require assistance from passenger doctors who act as good Samaritans in the sky. Their liability and the associated medico-legal issues of providing assistance in mid-flight emergencies are unknown. Although provisions exist in theory about good Samaritans on the ground, it is unclear to what extent these doctrines are applicable to good Samaritans in the sky. This article examines the obligations, liability and legal protection of doctors when acting as good Samaritans in mid-flight emergencies, regardless of their nationalities. It examines the jurisdiction, existing legislations, case law in the United Kingdom and compares with their equivalence in the United States and to some extent, with the legal provisions in France. In addition to in-flight emergencies, this paper reviews airlines' liability for injuries sustained by passengers during flight. It is concluded that doctors' liability is unclear and uncertain, their legal protection is inadequate and inconsistent; airlines' liability is restricted by the courts. [Reforms proposed include legislative enactment and extension of commercial airliners' insurance to accord the deficient legal protection.](#)

Introduction

In 2014, approximately 3.3 billion passengers flew on commercial flights worldwide.¹ Air travel is now the preferred mode of long distance transportation for people across the world.² Through the advent of low-cost airlines, more people are able to take to the sky including older people and individuals with pre-existing diseases, who have increased risk of developing health emergencies.³ As they are undertaking more air travelling, medical emergencies are occurring more frequently during flight.⁴ Furthermore, more people are taking long-haul flights, itself a risk of mid-flight emergencies.⁵ As a corollary, in-flight medical emergencies have become more common.⁶

About three quarters of in-flight emergencies are managed by cabin crew.⁷ In the remaining situations, assistance is required from medical professionals who are off-duty and provide interventions as good Samaritans in the sky.⁸ Notwithstanding the increasing occurrence of in-flight emergencies, many medical professionals are unfamiliar with the liability and the associated medico-legal issues of providing assistance in these types of situations.⁹ Although provisions exist in theory about good Samaritans on the ground,¹⁰ it is unclear to what extent these doctrines are applicable to good Samaritans in the sky.

This legal issue is not *de minimis*. Whilst the majority of mid-flight emergencies are due to minor events such as near-fainting or dizziness,¹¹ in-flight assistance rendered by doctors do not always have happy endings.¹² It is extremely rare but deaths have been reported in 0.3% – 0.7% of mid-flight emergencies.¹³ In these adverse circumstances, it is not inconceivable that the grieving next-of-kin might wish to apportion blames and pursue

negligence claims against doctors. The professional and financial consequences of such litigations against medical volunteerism in the sky cannot be underestimated and can be quite costly.¹⁴ To this end, part I of this article examines the liability of doctors acting as good Samaritans in mid-flight emergencies, regardless of their nationalities.

Doctors' liability of acting as good Samaritans in the sky is obfuscated further with the mode of air travel which defies all boundaries and frontiers, be it geographical, political or celestial.¹⁵ With vast advancement in aeronautical engineering,¹⁶ modern jetliners are now capable of traversing multiple national and international boundaries as well as legal jurisdictions in a single flight. As such, conflict of jurisdictions is a frequent occurrence and multiple or concurrent jurisdictions thereof could apply to a good Samaritan's act in the sky. Under these circumstances, a thorny subsidiary issue relating to the conflict of jurisdictions arises from the first legal issue on the liability of doctors rendering medical assistance in mid-flight emergencies and the legal issue is now about the 'liability of doctors who volunteer medical assistance in the sky where there is a conflict of jurisdictions.' This issue could easily be applied to real events exemplified by a hypothetical scenario of a French doctor offering medical assistance to a fellow Colombian passenger suffering from a heart attack onboard an American Airlines flight en route from Heathrow to New York Kennedy. In this scenario, what is the doctor's liability for rendering medical assistance in the sky and which jurisdiction or jurisdictions govern the doctor's liability? Part II of this article examines the jurisdiction or jurisdictions that govern doctors' liability for assisting in mid-flight emergencies, with reference to existing legislations notably the recent 2015 Social Action, Responsibility and Heroism Act, case

law in the United Kingdom (UK) and compares with their equivalence in the United States (US)¹⁷ and to some extent, France, representing jurisdiction in the European Union (EU).¹⁸

Lastly, insofar as in-flight emergencies are occurring inside the cabin of passenger airplane, what is the airline's liability for injuries sustained by air passengers? Does the airline have any liability for a good Samaritan's medical assistance that has gone wrong inside its aircraft? If the airliner has liability, is the liability restricted to injuries sustained by passengers in mid-flight emergencies or does the liability apply throughout a flight, regardless of in-flight emergencies? Part III reviews these liability. [Part IV offers reforms to address the legal and medical deficiencies identified in this article.](#)

Part I: Liability of good Samaritans

Medico-legal issues of in-flight medical emergencies

This article aims to examine the medico-legal issues of in-flight medical emergencies. Evaluation of the legal issues is incomplete without the examination of the underlying medical components. This section first explores the medical aspect of in-flight emergencies, then previews the legal aspect. Part II critically analyses these medical and legal components.

The medical aspect of in-flight emergencies

Airlines are not mandatorily required to report any in-flight medical emergencies.¹⁹ Reporting is entirely voluntary but it is not standardised.²⁰ There is no agreed definition of medical ‘emergencies’, ‘events’ or ‘incidents’ that may constitute in-flight emergencies. Research studies on in-flight emergencies are also scarce. As a result, a true prevalence of in-flight emergencies is not available.²¹ For the same reason, the types and outcomes of medical emergencies that occurred during flight are also not fully known.²² That said, based on the dearth of studies published in the existing literature, a common theme exists: common medical reasons reported for flight diversions are cardiac, respiratory and neurological emergencies.²³

Cardiac causes are one of the commonest reasons for flight diversions. Cardiac arrest is one of UK’s largest killers with an overall survival rate of less than 1 in 10 if suffered

outside hospitals.²⁴ Without treatment, cardiac arrest onboard passenger plane is almost always fatal.²⁵ Studies have shown that survival rates of cardiac arrest in commercial aircrafts are improved with automated external defibrillator (AED) carriage.²⁶ It has been shown that its installation is cost-effective on most American air carriers.²⁷ Prompted by the reports of AED effectiveness, the Aviation Medical Assistance Act (AMAA) was enacted in the US that *inter alia*, directed the aviation regulator, the Federal Aviation Administration (FAA) to consider requiring AEDs on all passenger aircrafts.²⁸ By 2001, the FAA had issued a rule requiring all US commercial aircrafts with at least one flight attendant to carry AEDs by 2004.²⁹ In the UK, similar recommendations were made by the House of Lords Select Committee on Science and Technology in 2000³⁰ but neither the aviation regulator Civil Aviation Authority (CAA) nor airlines have acted on the recommendations. In the UK and EU, commercial air carriers are legally required to carry an onboard emergency medical kit³¹ but the carriage of life-saving AED is not mandatory.³² This is worrying and necessitates change, which will be discussed in Part III.

The legal aspect

Aviation law is *sui generis*. The world's sovereign nations are replacing their differing systems of national air law with one international air law system.³³ International aviation law is quintessentially a combination of public and private international law.³⁴ The former normally refers to international aviation conventions or treaties notably the Warsaw, Montreal and Tokyo Conventions;³⁵ the latter usually relates to legal jurisdictional issues, in the circumstances of a conflict of air law between different countries.³⁶

The 1929 Warsaw Convention (WC) is an international aviation convention and one of the most important instruments of air law.³⁷ It was the first comprehensive legal framework governing aviation at international level, establishing a set of legal doctrines, principles, and constitutes the basis of modern aviation law.³⁸ Over the years, several amending protocols, supplementary instruments, rules, and regulations were added onto the WC.³⁹ These successive amendments have culminated in a highly complex and fragmented WC which has become a patchwork of six different legal instruments.⁴⁰ In 1999, the Montreal Convention (MC) was established with the intention to modernise and replace the antiquated, fragmented WC.⁴¹

In addition to public and private international air law, aviation's undertaking including commercial flights are also governed by domestic aviation law. In the UK, there is no domestic air law that expressly regulates doctors' liability when assisting in mid-flight emergencies. Nor there is any case law on in-flight emergencies. As such at present, it is likely that English common law of tort governs this area. Generally, there are three strands of requirements that must be established under the tort of medical negligence: a duty of care is owed by the doctor; that duty is breached; that breach of duty caused injuries, and that the injuries are not too remote.⁴² The law of many countries in Europe and Australia explicitly requires doctors to assist in emergencies.⁴³ By contrast, physicians in the UK, Canada,⁴⁴ US and Singapore do not have such legal obligations, unless there is a pre-existing doctor-patient relationship.⁴⁵

Under English law, there is no legal duty for anyone, even a doctor, to assist a stranger in an emergency.⁴⁶ The duty of a doctor witnessing a road accident was considered in an *obiter* by the Court of Appeal in *Capital v Hampshire CC*:⁴⁷ Lord Justice Stuart-Smith opined that the doctor is not under any legal obligation to assist in road accident and doctor-patient relationship does not arise.⁴⁸ In the event of the doctor volunteering assistance, her only duty is not to make the victim's condition worse.⁴⁹ His Justice felt that the doctor has no duty of care, even though there may be close physical proximity simply because one party is a doctor and the other has a medical problem which may be of interest to both.⁵⁰ Nonetheless, doctors face moral, professional and ethical obligations to assist in emergencies. The Hippocratic Oath provides that doctors have 'special obligations to all fellow human beings.'⁵¹ This is augmented by the Good Medical Practice (GMP) guidance issued by the medical regulator, the General Medical Council (GMC): 'you must offer help if emergencies arise...in the community...'⁵² The GMP guidance is further clarified by the British Medical Association's advice that 'doctors should be willing to identify themselves in emergency cases and offer help in a road traffic accident or aircraft emergency.'⁵³ Such recommendation is also present in World Medical Association's International Code of Ethical Practice.⁵⁴ Thus a professional or ethical duty might have been inferred by the medical bodies. Doctors failing to assist in emergency situations including in-flight emergencies might risk professional investigations by the GMC.⁵⁵

Medical negligence committed in the sky

Fortunately, litigations for negligent medical assistance in mid-flight emergencies are extremely rare. *Hitherto*, there has only been one self-reported case of a doctor in the US being sued for assisting in a mid-flight emergency.⁵⁶ The lawsuit was dismissed without hearing.⁵⁷ Despite the absence of case law, it is certain that if doctors chose to intervene in mid-flight emergencies, the requisite doctor-patient relationship will be created and the doctor's duty of care will arise.⁵⁸ In [the](#) English tort of medical negligence, the standard of care expected of a doctor is set by Bolam⁵⁹ and Bolitho⁶⁰ tests:⁶¹ the standard of care that can be expected of a doctor is the standard of a reasonable medical peer skilled in the particular speciality.⁶² A GP is to be assessed by the skills expected of a reasonable GP;⁶³ a consultant physician is to be judged by the standards expected of a reasonable consultant physician and so forth. If a GP were to attempt a specialist procedure, the GP would be judged by the standard of a reasonable specialist in that field.⁶⁴ Doctors acting in a particular capacity must exercise the skills expected of the capacity, irrespective of a lack of experience.⁶⁵

For this reason in mid-flight emergencies, when responding to requests for assistance, doctors should recognise and inform cabin crew of their limits in the medical skills professed and act within these limits. It is legally suicidal to attempt any procedures outside the competence of the doctors' speciality. Under normal circumstances this limitation is not difficult for doctors to recognise. What is difficult is doctors determining their liability when attempting a procedure outside their speciality's competence in emergencies where medical resources are scarce and the procedure might save life, for example in a medical emergency of tension pneumothorax?⁶⁶ This difficulty was faced by Professor Wallace⁶⁷

in his flight from Hong Kong to London where he had to perform a makeshift chest drain to relieve a mid-flight tension pneumothorax using a coat hanger.⁶⁸ Fortunately the mid-flight emergency had a happy ending and the doctor received plaudits for his intervention.⁶⁹ Undoubtedly it would be distressing for him if the boot is on the other foot and his makeshift chest drain worsened the tension pneumothorax, the passenger suffered adverse outcome as a consequence of his good Samaritan's intervention and filed litigation for medical negligence. Under the circumstances what is his liability? Fortunately the unfortunate situation did not arise but unfortunately doctors' liability under such circumstances is now unclear.⁷⁰

In general law of tort, the courts tend to consider the context and circumstances in which the doctors find themselves.⁷¹ In emergencies, it is normally accepted that doctors will not necessarily be able to demonstrate the same level of skill as in a controlled environment.⁷² With reference to scarce resources, it is not a complete defence and the courts expect a minimum standard of care.⁷³ As such in mid-flight emergencies, it is likely that the courts will recognise the standard of medical assistance onboard passenger planes differs to that on the ground, but a minimum standard of care is still expected. This recognition is of great import as the unique environment onboard aeroplanes are not normally conducive to standard medical examination or treatment.⁷⁴ Owing to the absence of case precedent, the minimum standard of care expected of good Samaritan doctors in the sky is also not established.

In clinical negligence, even if a doctor has breached the duty of care, claimant still has to prove that the breach of duty has caused injuries. The test for causation is the ‘but for’ test.⁷⁵ In the context of injuries sustained from good Samaritan’s assistance in mid-flight emergencies, passengers must be able to prove that there is more than 50% likelihood that the cause of injuries is due to the doctor’s intervention, on the balance of probabilities.⁷⁶ This causation test might pose difficulties in some circumstances in that there may be a chain of events that might have contributed to the injury, such as a negligent airliner or contributory negligence by claimant. The courts have acknowledged that where there are two negligent parties, the case law is unclear.⁷⁷ This lack of clarity can be easily demonstrated in the hypothetical mid-flight emergency scenario raised in the introduction section of this article: if the passenger suffering from a heart attack onboard the American Airlines flight had been treated by the good Samaritan doctor with faulty equipment of American Airlines, imputing causation and liability solely to the good Samaritan might be a challenge. Furthermore, if the passenger already had a history of several heart attacks in the past where he repetitively ignored doctors’ recommendations to control his high blood pressure, high cholesterol, obesity, diabetes and smoking, there is a cause to contend that the passenger is contributing to, if not wholly responsible for his heart attack, therein exonerating the doctor’s liability.

New legal test for good samaritan?

It is evident that doctor’s liability in mid-flight emergencies is ambiguous and the doctor’s position is rather precarious. In England and Wales, the Social Action, Responsibility and

Heroism Act 2015 came into force in April 2015.⁷⁸ The Act applies when the courts are determining the steps that a person is required to take in order to meet the standard of care, in claims that the person is alleged negligent or in breach of statutory duty.⁷⁹ The Act prescribes three factors that must be considered by the courts when determining such claims: whether the person was acting for the benefit of society or any of its members;⁸⁰ whether the person demonstrated a predominantly responsible approach towards protecting the safety or other interests of others;⁸¹ whether the person was acting heroically by intervening in an emergency to assist an individual in danger.⁸²

The legislative intention of the Act was explained in the House of Commons: ‘The Bill is about....protecting those who take risks to try to help those who are in trouble....Unfortunately, it is often the case that people are unwilling to intervene to help in emergencies....because they are worried about the legal position if they do try to help and something goes wrong....’⁸³ Based on the provisions of the Act and its legislative intent, at first blush, it seems that the Act is indeed a good Samaritan Act. Nonetheless, close examination of the Act reveals deficiencies and failings. More troublingly, it appears that the Act may not apply to good Samaritans in the sky.

The Act is relatively short, with only five sections.⁸⁴ Three key tests were set to determine the standard of care in alleged negligence, but no definitions or elaborations were provided with respect to the construction of these tests. The first test introduces the notion of ‘benefit of society’ wherein the courts must consider,⁸⁵ but what is ‘benefit of society’ and what is its definition? Societal benefit, in general, is quite an elusive concept and it has been

claimed that it will require subjective interpretation by the courts.⁸⁶ It is feared that the construction and application of ‘societal benefit’ in the context of good Samaritan doctors rendering assistance in mid-flight emergencies, may not be a straightforward undertaking.

Using the same hypothetical scenario of the ~~Colombian~~ passenger suffering from a mid-flight heart attack, it is no gainsaying that helping a fellow passenger who happens to be a school teacher, is not acting for ‘the benefit of society or any of its members.’ Teachers are valued members of the society and their contribution to society’s wellbeing is undeniable.⁸⁷ Uncertainty arises if the ~~Colombian~~ passenger is not a school teacher but an international drug dealer with multiple murder, rape and paedophilic convictions and the sole purpose of his flight is to meet another international drug dealer to negotiate a multi-dollars cocaine deal to fund his criminal activities. Under the same circumstances, does the assistance of an international drug dealer constitute an act for ‘societal benefits’? From the socio-legal perspective, the relationship between what is beneficial for a drug dealer and what is beneficial for the society as a whole, may not go hand to hand. In this respect, the undefined notion of ‘benefit of society’ will open up debates about the nature and types of societal benefits the courts must have regard to, perhaps taking into account the occupation of air passengers. Unfortunately, in the hypothetical emergency scenario onboard the American Airlines flight, the good Samaritan doctor does not have the luxury of time nor occupational history of the ~~Colombian~~ passenger to determine whether helping a drug dealer would be acting for the ‘benefit of society or any of its members.’

The second test brings focus on the factor of demonstrating ‘a predominantly responsible approach protecting the safety of others.’⁸⁸ In general, responsibility can be viewed in many senses. It is often used in a causal sense,⁸⁹ but it can also be used in a relational sense.⁹⁰ In medical negligence, a responsible body of medical opinion⁹¹ is a yardstick to determine the standard of care expected of a doctor. With respect to in-flight emergencies, what kind of approach is expected of a good Samaritan doctor in order to demonstrate ‘a predominantly responsible approach’? If a doctor has acted in accordance with practice accepted as proper by a responsible body of medical professionals and meet Bolam test, has the doctor demonstrated ‘a predominantly responsible approach’? For instance in the mid-flight emergency encountered by Professor Wallace as reported above, does the relief of the pneumothorax using a coat hanger as a makeshift chest drain amount to ‘a predominantly responsible approach’? Would other doctors use a coat hanger to relieve a pneumothorax and more crucially, should this be considered by the courts in the determination of ‘a predominantly responsible approach’? These are not frivolous questions but in the absence of any definitions or explanations in the Act, regrettably it could only be clarified by test cases.

The final test of ‘acting heroically’⁹² seems less contentious nonetheless also lacks clarity. In tort cases, heroism is normally associated with acts of bravery and courageous rescue in grave and dangerous situations where the rescuer’s life is often at considerable risk, such as the bravery rescue of a young child from an approaching train⁹³ or courageous protection of a young child from stepping onto live-electrified railway track.⁹⁴ In aviation, an American pilot has been hailed as hero after successfully ditching a commercial airliner in

New York's Hudson River whereupon all 155 passengers were rescued.⁹⁵ As previously outlined, doctors have implied ethical or professional obligations to assist in emergency situations.⁹⁶ By helping in emergencies, it can be argued that doctors are merely discharging their professional or ethical duties, rather than 'acting heroically.' In the mid-flight emergency scenario, by attending the Colombian passenger inside a comfortable and safe cabin of Boeing 777, the doctor is neither putting herself in dangerous situation nor risking her own life. Thus good Samaritan doctor's assistance in mid-flight emergencies may also not meet the third test! It is not without a force to submit that *a priori* reasoning, the three requirements set by the Act, might not be satisfied in mid-flight emergencies. As a consequence, the Act might not apply to good Samaritan's assistance in mid-flight emergencies, thereby not addressing doctor's liability in the sky.

Even if the Act is deemed applicable in mid-flight emergencies, having prescribed three factors that the courts must consider, the Act disappointingly does not provide any directions to the courts with regard to the next process of determination. In short, the Act does not tell the courts what to do next having regard to the factors. It is *carte blanche* to the courts to do anything as they see fit and give effects to the provisions.⁹⁷ This will inevitably generate parlous *genius loci*. More crucially, it can be claimed that this is inviting the courts to make new law from the incomplete Act, thereby invading legislative functions of Parliament and fundamentally undermining the doctrine of separation of powers.

In sum, the Act is a *deus ex machina* which merely flirted with Parliament's intention to protect good Samaritans. Parliament has missed the opportunity to address the medico-legal issues of doctors volunteering assistance in mid-flight emergencies. The Act is said 'intends to protect those who try to help those who are in trouble',⁹⁸ but perhaps there was little forethought by Parliamentary draftsman when drafting the Act to include protection to those who try to help those who are in trouble 'in the sky.'

Part II: Jurisdiction onboard commercial flights

Jurisdiction in the UK

Another thorny issue concerning doctors' liability in mid-flight emergencies is the determination of jurisdiction that governs doctors' liability in the sky where there is a conflict of air law. This obfuscatory matter is pseudo-addressed by the WC, which provides that in international flights, passengers can bring proceedings against an air carrier in the country in which the aircraft is ordinary resident; in which the aircraft has principal place of business; by which the contract has been made; of destination.⁹⁹ These jurisdictions have further been expanded by the MC¹⁰⁰ to include the country whence the injury occurred or the country in which passengers have their fixed and permanent residence.¹⁰¹

Both Conventions have force of law in the UK via the passing of Carriage of Air Act.¹⁰² Whilst the Conventions may provide some quasi-indications as to the jurisdictions that may determine the liability of good Samaritan doctors, they have several acute shortcomings.

First, the Conventions only regulate airlines' liability but have no provisions on liability of good Samaritan doctors. It should be noted that doctors board flights as passengers. They, *ipso facto*, are not employees of airlines, therefore they are not covered by airlines employer's liability insurance. Therefore, good Samaritan doctors' liability is not provided by aviation conventions or aviation insurance. As such, doctors attending medical emergencies in the sky are figuratively and legally 'in the middle of nowhere' and 'in no man's land'.

The second shortcoming may partially address the deficiency outlined in the first failing. For acts committed onboard air carriers that 'may or do jeopardize the safety of persons onboard,'¹⁰³ the 1969 Tokyo Convention (TC)¹⁰⁴ asserts the competence of the country of registration of the aircraft to exercise jurisdiction.¹⁰⁵ In late 1950s, aeroplanes became attractive targets for terrorism, hijackings and other aircraft-related crimes.¹⁰⁶ In response to the rise in these crimes, the TC was established.¹⁰⁷ At first glance, this Convention appears to offer provisions broad enough to include the jurisdiction at which liability of good Samaritan doctors can be determined. Nonetheless, the provisions are explicitly concerned with acts affecting 'the safety of persons onboard' air carriers.¹⁰⁸ It is prudent to note that the Convention was signed by the international aviation community in response to the surge of aircraft-related crimes in 1950s.¹⁰⁹ In other words, the Convention was established with the intention to regulate aircraft-related crimes and not liability of good Samaritan's acts onboard aircrafts. That said, it can be argued that if the standard of good Samaritan's assistance in mid-flight emergencies is so poor and so bad that it 'jeopardises the safety of air passengers', the TC could be applicable. Conversely it can be counter-

argued that this is introducing a sliding scale test to determine the applicability of the TC and thence liability of good Samaritan doctors. This does not add any certainty to the current uncertain state of affairs. In mid-flight emergencies, doctors are volunteering their assistance in good faith. As eluded earlier, time is the essence in medical emergencies but time is what good Samaritans do not have if the doctors also have to consider the consequences of their intervention in accordance with a sliding scale.

Thirdly, with respect to WC and MC, their provisions are only applicable in non-domestic flights, due to their exclusivity character.¹¹⁰ As such passengers in international flights are unable to invoke domestic legislations or have recourse to any other remedies whether under common law or otherwise. The courts in several countries including the Supreme Court in the UK, have consistently affirmed the exclusive jurisdiction of the Conventions over any domestic air law.¹¹¹ Thus, in the hypothetical scenario where the American Airlines flight was en route from Heathrow to New York, the passenger has no recourse to English legal system even though if he sustained injuries in the sky above London. This legal stance was affirmed in *Stott v Thomas Cook*¹¹² where it was deemed that UK disability regulations could not be invoked to offer protection to disabled passengers in international flights.¹¹³

For domestic flights within the EU, flights by EU carriers are subject to the provisions of the MC.¹¹⁴ For domestic flights in countries outside the EU, liability is governed by the law of local jurisdiction, and this can vary from one country to another, with little consistency or uniformity. Domestic law in some countries, for instance Nepal, permits a

cap on liability even for serious injuries or death;¹¹⁵ whereas liability in other nations can be unlimited.¹¹⁶ All in all, it can confidently be concluded that liability in domestic flights, certainly has no certainty.

Fourthly, the provisions are only effective in the 152 contracting states¹¹⁷ that have ratified the WC. There are 191 member states in ICAO¹¹⁸ thus 39 non-signatory nations¹¹⁹ are not bound by the Convention, *ergo* airlines' liability in these countries thereto are unknown and are apt to be dictated by their domestic legislations, which can be variable as elucidated earlier. In the same vein, the additional jurisdictions prescribed by the MC are only enforceable in its 119 signatory-countries,¹²⁰ which are 33 nations fewer than the contracting states of the WC.

The MC was established to modernise and supersede the archaic WC.¹²¹ 17 years have elapsed since the signing of the MC and until all state parties of WC ratify MC, these two Conventions will operate in parallel in a transition period. It is notable that the wordings and provisions of both Conventions are similar but not identical, therefore liability provided by the MC is not necessary captured by the WC. As such arises an unjust situation where liability for international flights is not uniform across the contracting states: some countries ratify the MC that offers modern and comprehensive provisions; other nations give effect to the WC which provides outdated and limited regulations. This defeats the objective of the Conventions to unify and harmonise air rules governing international flights.¹²² Furthermore there is no time limit for the ratification of the MC. Thus another unjust situation arises where the contracting states of the outdated WC could hold onto the

status quo for as long as possible and possibly *ad infinitum*. Regrettably it looks unlikely that the MC will be ratified by all member states for many years if it follows the slow history of its predecessor conventions.¹²³

Other applicable jurisdictions

The TC, *inter alia*, asserts the country of registration of air carrier as competent to exercise jurisdiction over criminal offences committed onboard the aircraft.¹²⁴ That said, there are explicit exceptions provided by the Convention, therefore any countries may also exercise their jurisdiction if the offence has effect on its territory; the offence has been committed by or against its national or permanent resident; the offence is against its security; the offence consists of a breach of any rules or regulations relating to the flight or manoeuvre of aircraft in force in its territory; the exercise of jurisdiction is necessary to ensure the observance of its obligation under a multilateral international agreement.¹²⁵

It is no doubt that these exceptions are exceptionally broad. It appears that in mid-flight emergencies, doctors' liability may be determined by multiple and or concurrent jurisdictions, for example by the country in which the in-flight emergency occurred or by the country where the passenger resides permanently or is a citizen. In the former, it can be contended that doctors' liability in mid-flight emergencies can be down to pure luck and chance. Insofar as the UK is a trading partner with the EU, notwithstanding the recent EU membership referendum result, this contention shall be supported with an analysis of doctors' liability in the EU. For instance, if medical emergencies have occurred in the sky

above France or onboard French-registered aircrafts,¹²⁶ French physicians have legal and medical obligations to assist and are subject to French Penal law¹²⁷ as well as Deontology Code¹²⁸ for adverse consequences of assisting¹²⁹ and also for not assisting.¹³⁰ In France, it is considered wilful negligence if a doctor is informed of the imminent peril and distress of the emergency but wilfully abstains from assisting.¹³¹ French case law indicates that wilful negligence by physicians is penalised in most circumstances.¹³² More disturbingly, according to French Penal Code, French criminal law is applicable to crimes or misdemeanours committed onboard aircrafts if the casualty is French national and if the plane lands in France¹³³ irrespective of the nationality of the good Samaritan or the country where the aircraft is registered. As such non-French doctors may be liable for French criminal prosecutions if French passengers have adversely been injured from doctors' assistance in mid-flight emergencies and the airplane has diverted to and landed in France.

The sad irony is that under the same circumstances where the French passenger has been adversely injured but the plane does not land in France, the doctor, regardless of her nationality, is not liable to any legal proceedings. As a corollary, good Samaritan doctors sitting next to each other in an international flight can have very different liability for assisting in mid-flight emergencies. Their liability or fate is down to luck and chance, dependent on the country where the mid-flight emergency occurred; the country where the aircraft is registered and the country where they are born, akin to a liability lottery.

With respect to the determination of doctor's liability in the domicile country of the passenger, it is important to appreciate that in general, doctors are normally sued for

clinical negligence in the country at which they are medically registered.¹³⁴ Hence if a proceeding is brought against a good Samaritan physician in the national or domicile country of the passenger where the doctor is not registered and not medically recognised, the courts might adjudicate the claim on the basis that the good Samaritan is a mere layperson rather than a medical professional.¹³⁵ It may be of some comfort to doctors that in such circumstances, the courts have exhibited lenient attitude towards good Samaritan's liability and have been reluctant to apply the relevant legal principles strictly.¹³⁶

Indemnity to doctors in the sky

At present UK-registered airlines operating out of the UK have no legal obligation to offer indemnity to good Samaritans.¹³⁷ It is at the discretion of airlines whether they offer indemnity out of goodwill. In 2006 British Airways and Virgin Atlantic Airways have started indemnifying medical professionals from liability, save in gross negligence that might arise from their assistance in mid-flight emergencies.¹³⁸ Unfortunately the terms of these insurance cannot always be adequately explained and understood in medical emergencies.¹³⁹ The full scope of these insurance and whether they are still provided by the aforementioned operators are unknown. In response to the general uncertainties, two of doctors' defence bodies have made announcements to indemnify their members for good Samaritan acts worldwide.¹⁴⁰ Another defence organisation advises that it 'will assist its members with problems arising from [good Samaritan acts] anywhere in the world.'¹⁴¹ Regrettably, the full coverage of these indemnity has also not been explicitly expressed by the defence bodies, at little reassurance to good Samaritan physicians.

Indemnity elsewhere: international perspective

Indemnity to good Samaritan physicians is very different across the Atlantic. In 1998 the Aviation Medical Assistance Act was enacted in the US to bestow legal protection to ‘medically qualified individual’ who acts as good Samaritan and provides assistance in mid-flight medical emergencies.¹⁴² This protection includes any acts or omissions by good Samaritan unless it is of ‘gross negligence’ or ‘wilful misconduct.’¹⁴³ ‘Medically qualified individual’ is defined by the Act to encompass any person who is ‘licensed, certified, or otherwise qualified to provide medical care in America including physician, nurse, physician assistant, paramedic, and emergency medical technician.’¹⁴⁴ The Act applies to claims commenced in the US involving US-registered aircrafts.¹⁴⁵

In the Commonwealth realm, similar legislations have also been enacted in some Canadian states¹⁴⁶ and nearly all states in Australia.¹⁴⁷ In Ireland, the Civil Law Act¹⁴⁸ exempts good Samaritans from liability for any acts in emergencies including telephone advice when assisting a person who is ‘injured; in serious and imminent danger of being injured or suffering from an illness.’¹⁴⁹ The protection even extends to emergencies that are caused by acts of good Samaritans.¹⁵⁰ In Bermuda, the Volunteer Liability Act offers protection insofar as deaths in emergencies unless it is caused by gross negligence.¹⁵¹

Weaknesses & deficiencies of existing legislations & indemnity

In spite of the plethora of legislation and indemnity laws, the actual protection to good Samaritan doctors in the sky does not seem certain, clear, consistent, adequate and it is certainly qualified. First, it is not clear or certain that these indemnity arrangements would apply if doctors voluntarily offered assistance instead of responding to requests to provide assistance. The Aviation Medical Assistance Act (AMAA), for instance, has explicit provisions that offer protection to airlines in the case of ‘obtaining or attempting to obtain medical assistance’¹⁵² in mid-flight emergencies. Ordinary interpretation of the provisions would indicate that the Act only has force when cabin crews are actively requesting medical assistance from doctors rather than passively receiving assistance from medical volunteerism. This determination of the act of ‘obtaining or attempting to obtain medical assistance’ is neither frivolous nor insignificant: the former necessitates affirmative actions such as enlisting help via cabin’s tannoy; the latter merely involves passive acceptance of offers from good Samaritan physicians. The positive actions required in the former are vividly absent in the latter. It can be contended that the general spirit and purpose of the Act tend to support the submission that good Samaritan doctors should be protected irrespective of the means at which the ‘medical assistance is obtained’, but this cannot be certain until the issue is clarified by the courts.

Secondly, AMAA offers protection to ‘medically qualified individual[s]’ which has been defined by the Act as an individual qualified to provide medical care in the US.¹⁵³ Any physician licensed in the US is covered by the Act but unfortunately with the exception of physicians from Canada,¹⁵⁴ most doctors in the planet will be excluded. Medical Licensing Boards in the US do not recognise trainings, qualifications or licenses of any non-US

medical graduates including specialist consultants from the UK, EU or Australasia.¹⁵⁵ Therefore, any non US-licensed physician is not protected by AMAA, even if the good Samaritan doctor is an US national¹⁵⁶ and the in-flight emergency occurred inside the cabin of a US-registered air carrier and took place in the sky above the US.

Thirdly, some legislations do not protect good Samaritan doctors from ‘gross negligence’ or ‘wilful misconduct’, but their definitions are absent in these legislations.¹⁵⁷ The notions of gross negligence and wilful misconduct are normally distrusted by English common law and are less developed compared to civil law systems in other countries,¹⁵⁸ *ergo* opening up to variable interpretations.¹⁵⁹ The notion of gross negligence is more developed in English criminal law and is normally associated with prosecution for manslaughter. In criminal prosecutions, a doctor is guilty of gross negligence manslaughter if the jury is satisfied that the breach of the duty of care is ‘so bad as to constitute a crime.’¹⁶⁰ The salient problem with this route of determination is that it is supremely a jury question, and the test employed by juries is circular.¹⁶¹ In addition, it seems that the question of law is now left to the jury as they have to decide whether the conduct of a doctor amounts to gross negligence. In the context of a doctor passenger, the buck has been passed to the jury who have to judge the good Samaritan standard of a doctor. As such, in the event of an adverse outcome attributed by the doctor’s intervention in mid-flight emergencies, it would be for the jury to determine whether the actions constituted gross negligence with the accompanying stress, blame and uncertainty that this encompasses.

Moreover, there is no guidance as to how far below the accepted standards of care should be for the breach of duty by doctors ‘so bad as to constitute a crime.’ This raises many uncertainties and questions. For example, in the hypothetical scenario of the French physician onboard the American Airlines flight en route from Heathrow to New York, does relaxing and drinking a few glasses of Chardonnay during the eight-hour transatlantic flight before assisting a fellow passenger with a heart attack and inadvertently caused harm amount to gross negligence?

Alcohol is known to impair mental and physical performance.¹⁶² In the UK, there is strict alcohol limits for driving motor vehicles and the consumption of several glasses of wine would unquestionably exceed this limit.¹⁶³ Drink-driving is a criminal offence.¹⁶⁴ Thus in the mid-flight emergency scenario, after relaxing with a few glasses of Chardonnay, should the doctor decline to help and leave the passenger continues to suffer from heart attack, so as to avoid the plausible allegation of providing medical assistance under the influence of alcohol ‘so bad as to constitute a crime’?

Besides alcohol, some medicinal products and medication can also cause impairment in mental performance.¹⁶⁵ Flight safety is *sine qua non* of aviation industry and commercial pilots are prohibited from taking any medication that may impair their mental performance and affect flight safety.¹⁶⁶ These prohibited medications include routine over-the-counter medicinal remedy such as Piriton.¹⁶⁷ As such for a doctor who has just taken piriton for her hay-fever symptoms and feeling drowsy because of the tablet, should she refuse to help

in mid-flight emergencies, for fear of impairment in mental performance and committing gross negligence?

In addition to alcohol and medications, there are other relevant and important factors that are silent in the existing good Samaritan legislations. A doctor in the sky may also inadvertently experience performance impairment from other causes, notably jet-lag, a common affect in long-haul flights. Thus should a doctor suffering jet-lag also abstain from assisting in mid-flight emergencies? Apart from jet-lag, fatigue or tiredness can also affect performance. Working long hours or night shifts is associated with fatigue and increased accident risk.¹⁶⁸ In fact fatigue is a bigger cause of road accidents than alcohol or medication.¹⁶⁹ In aviation, pilot fatigue has been blamed at least in part for several civil aviation incidents and accidents.¹⁷⁰ Inasmuch as these, there are strict regulations limiting the number of hours commercial pilots¹⁷¹ or heavy goods vehicle (HGV) drivers¹⁷² can work. Doctors, *de facto*, are not doing any less safety critical work¹⁷³ than commercial pilots or HGV drivers. For this reason, should a doctor feeling fatigue after completing a series of nights or long-day shifts stop attending sick passengers in the sky?

All these factors can affect the performance of good Samaritan doctors in the sky yet they are all uniformly absent in the existing good Samaritan legislations or indemnity. Apart from gross negligence, some good Samaritan legislations also exclude wilful misconduct from their protection.¹⁷⁴ The concept of wilful misconduct is also relatively alien in English tort law of medical negligence. It is more developed in criminal and contract law. In criminal proceedings, wilful misconduct has been construed as ‘far beyond any

negligence and involves a person knowing and appreciates that it is wrong conduct on his part to do, or omit to do a particular thing, and yet intentionally does or omits to do it, or persists in the act, or omission, notwithstanding the consequences.¹⁷⁵ This notion is not easy to grasp and was explored in a prosecution case of a person who allegedly fell asleep at the wheel¹⁷⁶ where it was held that the legal fact of a driver feeling sleepy or admitting to falling asleep and deciding to continue to drive, would not amount to wilful misconduct.¹⁷⁷ The driver is also not guilty of wilful misconduct if he feels some degree of tiredness but does not believe that it is sufficient to impair his ability to drive with proper care.¹⁷⁸ The courts have ruled that only if the driver confessed to driving contrary to driving regulations as to time and rest periods, and admitted that he appreciated that fact, the driver may be guilty.¹⁷⁹ The adoption of wilful misconduct in criminal law introduces the element of actual awareness in commission or omission of an act. This is arguably akin to *mens rea* and is notoriously difficult to prove.¹⁸⁰

A more fundamental issue goes beyond the interpretation of gross negligence and wilful misconduct and asks the question: why are the legislations on liability of good Samaritans importing notions from criminal law? They are not two peas in a pod. The former intends to protect good Samaritans therein encouraging righteous acts for the good spirits of the community; the latter aims to isolate and punish the blameworthy for violating values of the community. It is legally unjust to mix and match the two, isolating and punishing good Samaritans for acting in the good spirits and values of the community.

The foregoing render the current state of affairs uncertain, unclear and inadequate, which will only increase the likelihood of the law being inconsistently applied to good Samaritan doctors in the sky. Prompt reforms in this area are required and shall be discussed at the end of part III.

Part III: Airlines' liability

Proof of accident

Medico-legal issues during mid-flight emergencies are not just restricted to the liability of doctors when providing medical assistance. Airlines are also liable for injuries sustained by passengers during air travel, whether in mid-flight emergencies or not. Their liability, in stark contrast to doctors' liability, is expressly provided by legal instruments.¹⁸¹ Nonetheless, just like doctors' liability, airlines' liability is also rather obfuscated.¹⁸² To hold airlines liable for injuries sustained during flight,¹⁸³ claimants have to prove that there has been an accident; that the accident caused bodily injury or death; and that this accident took place onboard an aircraft or during the process of embarkation to or disembarkation from an aircraft.¹⁸⁴

The WC and MC are international treaties and *hitherto*, British courts are taking a purposive approach¹⁸⁵ to interpret the Conventions.¹⁸⁶ Emphasis has been placed to examine the event of the injuries as a whole with due regard to the views of the courts in other countries which are signatories of the Conventions,¹⁸⁷ in order to achieve uniformity and certainty across legal boundaries.¹⁸⁸ In doing so, the courts have followed the interpretation of the

Conventions by the courts in America.¹⁸⁹ US and UK courts have interpreted ‘an accident’ to mean an ‘unexpected or unusual event or happening that is external to the passenger.’¹⁹⁰ In US seminal case of *Air France v Saks*¹⁹¹ ‘an accident’ was held not to have occurred if the alleged injury is due to passenger's own ‘internal reaction to the usual, normal and expected operation of the aircraft.’¹⁹² US Supreme Court has set two test questions for the determination of ‘an accident’. First, was there an internal reaction to the usual, normal and expected operation of the aircraft? Secondly, were there any unexpected or unusual event or happening that is external to the passenger?

Illness, disease or personal pre-disposition *per se*, if suffered by passengers during flight, have been deemed by US courts as ‘an internal condition or internal reaction to the usual, normal, and expected operation of an airplane,’¹⁹³ thereupon not amounting to ‘injuries from an accident.’¹⁹⁴ These include mid-flight heart attack¹⁹⁵ and asthma attack.¹⁹⁶ Airline operators are therefore not liable for the suffering of these medical events during flight. US courts have also exonerated airliners from liability in their actions or inactions in response to in-flight medical emergencies.¹⁹⁷ That said, US courts have shown some flexibility by injecting some standards from tort law, namely fault-based negligence. In US Supreme Court’s ruling in *Olympic Airways v Husain*,¹⁹⁸ the death of a passenger from an asthma attack due to second-hand smoke during flight, was deemed ‘an injury from an accident’, when cabin crew refused to move the passenger further away from the smoking section of the cabin despite repetitive requests from the passenger. The court opined that an injury is the product of a chain of causes and claimant needs only to prove that some link in the chain is ‘an unusual or unexpected event external to the passenger.’¹⁹⁹ It was adjudged that the

refusal by cabin crew for a seat change after express requests by the passenger, was ‘an unusual and unexpected event that was external to the passenger.’²⁰⁰

Ex post *Husain*, it seems that US airlines would now be liable for adverse consequences of in-flight emergencies if they are aware of a pre-existing medical condition; can reasonably act in a situation that will not interfere with the normal operations of flight; and failed to do so.²⁰¹ In spite of the courts’ general purposive approach to interpret the WC and MC in uniformity with court judgments of other signatories of the Conventions, in order to hold airlines liable for their negligence in causing air passengers’ illness or incapacitation, US Supreme Court in *Husain* was prepared to espouse the common law duty of care that has no legal existence in many countries, especially the non-common law, non-English speaking or non-Commonwealth nations. By doing so, US Supreme Court has sent a message to airline operators that they have a duty to act with a reasonable level of care when managing passengers in mid-flight emergencies.

Some of US courts’ earlier rulings, notwithstanding their persuasive legal authority in the UK, have been followed and affirmed by courts in a number of cases on this side of the Atlantic.²⁰² British courts have applied American’s earlier canons of restrictive approach as to the interpretation of ‘an accident’ and ruled that it is not to be construed as any injuries caused by passenger’s ‘particular, personal or peculiar reaction to the normal operation of the aircraft.’²⁰³ Whilst the courts on both sides of the Atlantic converge on exempting airlines from liability in the majority of in-flight medical emergencies, deep venous thrombosis (DVT) is an exception and represents a point of divergence between UK and

US courts. Unlike British courts, American courts have recently liberated the exegesis of ‘an accident’ to include failure by airlines to warn passengers about the risk of DVT with flight, ruling that it was ‘unexpected or unusual event or happening external to the passenger.’²⁰⁴

Proof of accident: UK perspective

There is only a handful of UK case law on airlines’ liability for injuries to air passengers in mid-flight emergencies. By reference to these case precedents, it is plain that if in-flight emergencies are due to medical events, airlines do not have liability for the consequential injuries, even for death.²⁰⁵ However, in mid-flight emergencies that have been negligently attended by good Samaritan physicians, it is now not without force to argue that the intervention by doctors could constitute ‘an external unexpected, untoward or unusual event, that happens independently of air passengers,’ and the consequential injuries thereof sustained, is not a ‘particular, personal or peculiar reaction to the normal operation of the aircraft,’ therefore amounting to ‘an injury from an accident’ whereupon airlines can be held liable. US Supreme Court case of *Husain* lends countenance to this argument. Nevertheless this argument is a double-edge sword. The other side of the coin is that applying the same argument, a slip on a strip embedded on the floor of a passenger plane was recently deemed by UK Court of Appeal not amounting to ‘an external event that happened independently of anything done or omitted by the passenger’ and it was a mere ‘personal, particular reaction to the normal operation of the aircraft.’²⁰⁶ In tort law on occupiers’ liability, a slip on negligent premises including a snow-covered step of a school

has been deemed as an injury for which the defendant was held liable.²⁰⁷ The duty to take reasonable care to ensure users are reasonably safe in using premises²⁰⁸ has been extended by Statute to include taking reasonable care in ‘moveable structure’ such as aircrafts.²⁰⁹ This extension of the duty of care notwithstanding, the courts remain unwilling to expand occupier’s liability to incorporate injuries negligently sustained onboard passenger planes in the sky.

The courts’ apparent disinclination can be traced to the objective of the WC to promote growth of the fledgling airlines industry in 1920s.²¹⁰ During that period, travelling by air was an adventure and its fatality rate was drastically higher than it is today.²¹¹ It was feared that without restricting airlines’ liability for injuries or death of air passengers, litigations against airlines could drown the whole aviation industry.²¹²

Antagonists of this rationale could counter-claim that the fear dated in 1920s is now a fallacy in 21st century. Not only airlines industry has not drowned, it has figuratively taken off. Global revenue in air transport has been up year by year²¹³ and in 2014, airlines’ revenue has increased by 25% in four years to \$6.1trillions.²¹⁴ Despite these soaring profits, qualities of services receive by air passengers have deteriorated: seats and toilets are smaller with less legroom,²¹⁵ aisles are narrower.²¹⁶ Tactics are employed to ensure passengers are undertaking self check-in, self-issue boarding passes and other services that have traditionally been provided by airlines. By transferring the undertaking of these services to passengers, less staff would be required and employed by airlines thereupon reducing overheads and boost profit margin further.²¹⁷ In its lust to save money, low-frill

airline Ryanair has unveiled new strategy to remove all rear toilets from its aircrafts replacing them with more seats.²¹⁸ Air passengers could face more unpleasant experience onboard if rear toilets are removed to leave with just one toilet at the front, sharing the facility with more than 200 people including the pilots.²¹⁹ The airline has previously dropped its controversial plan to charge passengers for using onboard toilets²²⁰ but continues its wanton practice of levying ‘administration fee’ for any transactions with debit and credit cards.²²¹ Britain’s biggest budget airline EasyJet is also employing unscrupulous practice to maximise its revenue: it oversells thousands of its peak-season flights and then tells passengers they must travel by circuitous routes to reach their destination, blatantly flouting EU rules on overbooking.²²² Spokesman for the airline claimed that 2.6 million EasyJet passengers a year failed to turn up for their booked flights and the airline would only overbook its flights after reviewing the no-show rate for the preceding three months.²²³ This frank admission of the practice of overbooking flights at the detriment of air passengers is alarming. It is unmistakable that airlines will continue to launch new tactics to squeeze every single penny out of their customers.

On the other hand, armed with greater knowledge in aviation medicine and advancement in aeronautical engineering, airlines’ deaths and injuries have plummeted significantly. Many people are now travelling by air and spending more of their times inside the flight cabins, therein placing their safety, health and wellbeing in the hands of airlines that have a degree of control over them during their flights.²²⁴ Thus a passenger who becomes ill during flight has good reasons to rely on cabin crews for assistance inasmuch as their traditional role has been associated with the protection of passengers’ safety and health.²²⁵

When flight attendants were introduced in 1930s, many airlines required flight attendants be nurses.²²⁶ It is unreasonable to expect such practice is reintroduced as cabin crews in most airlines are now trained in first aid²²⁷ but it is not unreasonable to expect airlines to be held accountable and liable for injuries or death of their passengers if airlines negligently contribute to the cause. The WC was conceived *inter alia*, to balance the interest between the development of air industry and the protection of air passengers who might suffer injuries during air travel. *Heretofore*, the scale has unequivocally weighed heavily towards the former and aviation industry has unquestionably as a consequence, flourished to become a mega-trillion dollars industry. Airlines have certainly been protected by the WC and the industry is now strong and healthy. There is now an increasing unequal bargaining power between the mighty profit-making air industry and air passengers who are paying to receive less service. Perhaps the scale of balance should now be recalibrated towards protecting air passengers. This will be discussed in the reforms section of Part IV.

Proof of causation and location of accident

To hold airlines liable, claimants must also prove that ‘an accident has caused injuries or death.’²²⁸ This is relatively less contentious. Unlike the ‘but for’ test in common law negligence, in aviation law orthodoxy is that there is no such test. By reference to existing case precedents, proving causation is not an obstacle.²²⁹ According to the WC and MC, airlines are only liable for injuries sustained by passengers from an accident ‘onboard aircraft or in the course of embarkation or disembarkation.’²³⁰ A temporal limit is

prescribed therein by the Conventions: any injury and its damages thereof sustained prior to embarkation or after disembarkation is not recoverable. To determine these temporal margins, US courts have introduced a tripartite test that examines the location of the accident; the activity of the injured passenger at the time of accident; and the control by airline over the passenger at that time of accident.²³¹ British courts are indisposed to apply the tripartite test, instead adopting a more literal approach to construe the terms embarking and disembarking.²³² Beguilingly the end point of the literal interpretation applied by British courts is very similar to the outcome of the American tripartite test.

Part IV: Reforms

Liability of doctors in the sky and the associated medico-legal issues, notwithstanding existing legislations, case law and international aviation conventions, remain far from clear, certain, complete or consistent. In medical emergencies, most physicians feel compelled to act but might be hesitant because of the uncertainties of legal ramifications.²³³ In a survey conducted on British doctors in 2015 about good Samaritan acts, 60% respondents reported that they would feel reassured if there was extra legal protection for doctors acting as good Samaritans.²³⁴ A call for legal protection to good Samaritan doctors rendering assistance in air travel also emanated from the World Medical Association ten years ago.²³⁵ More crucially and fundamentally, there is an underlying rationale for such protection. Medical professionals in the UK are increasingly feeling stressed and under pressure due to increase in workloads.²³⁶ Their stress is exacerbated by the over-zealous stance of the GMC to investigate and sanction doctors for insignificant complaints and matters.²³⁷ *Hitherto* 28

doctors have committed suicide during the process of investigations by the GMC.²³⁸ Moreover, medical professionals also have higher rates of mental health problems.²³⁹ Doctors receiving complaints have increased risk of developing anxiety and depression.²⁴⁰ More worryingly, even in the absence of any regulatory investigation, 10% - 20% of doctors suffer from depression at some point in their careers.²⁴¹ In general, any legal proceedings filed against doctors, particularly criminal prosecutions, if brought to the attention of GMC, are apt to lead to investigations on doctors' fitness to practice (FTP).²⁴² In the event of good Samaritan doctors undergoing proceedings for alleged negligence or criminal offence in mid-flight emergencies, it is likely that the GMC would launch its FTP investigations after the conclusion of legal proceedings.²⁴³ As such, doctors in mid-flight emergencies are facing double jeopardy: at risk of investigations by the GMC for breaching professional duty when not assisting in emergencies; at risk of litigations by passengers for medical negligence and FTP investigations by the GMC when assisting in emergencies but inadvertently caused harm. In fact doctor in the sky is un-enviably between a rock and hard place; damned if does damned if doesn't.

With projected increase in mid-flight emergencies and rise in lawsuits against doctors,²⁴⁴ the current situation is not ideal and reforms are imperatively overdue. The crux of the issue, viz the uncertainty and lack of clarity of doctors' liability when rendered assistance in mid-flight emergencies can certainly be made certain and clear by enactment of an Act explicitly providing the liability, akin to the American Aviation Medical Assistance Act.²⁴⁵ This is unquestionably the best way to cut the Gordian knot, simplifying a complex calculus, providing clarity as well as certainty. To avoid venturing into *terra incognita* and

introducing legal concepts that are relatively alien to English tort of negligence, the notions of gross negligence and wilful misconduct ought to be avoided in the provisions. Explicit inclusions and exclusions with definitions and examples or elaborations of any potential nuances would enable the Act to attain water-tightness and eliminate lacunas or loopholes. Due to the commonplace of alcohol onboard most flights, specific reference to the inclusion or exclusion of alcohol consumption from liability, would address the current mist of uncertainty on liability when providing medical assistance post-alcohol. Measurable alcohol limit could be set to demarcate the inclusion-exclusion arbitration, based on the DVLA drink driving limit. A similar limit, *mutatis mutandis*, could also be assigned for common medications or drugs.²⁴⁶ Liability for other relevant factors notably jet-lag or fatigue, should also be expressly included or excluded. To avoid any nebulous connotations, the provisions should explicitly provide protection to good Samaritans without having to regard to whether medical assistance is voluntarily offered or provided in response to request. Doctors of all nationalities should be included by the provisions to cover medical assistance rendered in all parts of the globe.²⁴⁷

In addition to Statute, legal protection for doctor in the sky should also derive from insurance indemnity. To demonstrate their corporate social responsibility, all commercial airlines ought to extend their air carriers' insurance to good Samaritan physicians who, after all are volunteering medical assistance in good faith. Considering the soar of revenue in air transportation, extension of airlines' insurance to protect good Samaritan doctors on an ad-hoc basis in mid-flight emergencies seems reasonable and the additional costs incurred would not be disproportionate. Finally, as air travel is now embracing more

international flights and activities, its effects are truly global. Any changes to air law are incomplete without participation and collaboration from the international aviation community. There are 192 member states of ICAO²⁴⁸ but only 152 are signatories of the WC.²⁴⁹ More disappointingly, a mere 112 states are contracted to the MC.²⁵⁰ It is astonishing that air passengers' rights to injury claims in 21st century are determined by legislations from the beginning of 20th century.²⁵¹ 186 nations have put their heads above the parapet and ratified the TC to combat global terrorism and crimes against aircrafts.²⁵² These countries should also do the right thing with MC, ratify and unify the Convention internationally, achieving uniform and equal liability in all member states.

Reforms to aviation medicine are also overdue. In 2015, a UK coroner has called on airlines to carry AEDs after a healthy passenger died on a Ryanair flight and her resuscitation by a good Samaritan doctor was without AED onboard and was unsuccessful.²⁵³ On the other hand in the same year, Ryanair's annual profit rocketed by 66% to €867 millions and its profit is expected to reach €1 billion in 2016.²⁵⁴ Around the world, year after year, lawsuits against airlines for failure to respond to in-flight emergencies grow without exception.²⁵⁵ It seems that the expected level of medical care onboard passenger planes is increasing. Having regard to the convincing medical evidence for AED's carriage onboard passenger planes, the mandatory practice of its carriage by air carriers in the US, the soaring profits of airliners year by year, it would now seem reasonable to expect AEDs to be made available onboard all aircrafts on this side of the Atlantic. Moreover, all European airplanes flying to the US are legally obliged to carry

AEDs.²⁵⁶ It is unpersuasive for these airliners not to extend AEDs carriage to flights in Europe.

By the same token, to safeguard passengers' safety and health, it is medically sound to obligate all airlines to have accessibility to 24-hour ground-to-air telemedical service for aviation medical specialist's advice and guidance in the event of in-flight emergencies. On a separate subject-matter, it is plain that current medical knowledge on in-flight emergencies is not advanced due to the paucity of data in this area. It is perplexing that in 2016, the true prevalence of in-flight medical emergencies, their causes and outcomes, remain unclear. The absence of this information is hampering medical efforts to guide and inform airlines industry on the management of in-flight emergencies. In other industry mainly in the Health and Safety sector, any injuries, accidents and dangerous incidents arising at work, are mandatorily reported to the enforcing authorities and the reporting procedures are standardised.²⁵⁷ In aviation industry, there should be a similar obligatory and standardised reporting system for every medical event requiring administration of first aid or other medical assistance and or requiring flight diversion. These could then be analysed and feedback to the industry so that airline operators could learn from errors in the past and would be better equipped to deal with in-flight emergencies in the future. This would reduce unnecessary flight diversions that are causing disruptions to airlines and distress to passengers, whilst continues to safeguard passengers' safety and health. It is a win-win situation.

Conclusion

Medico-legal issues in mid-flight emergencies remain far from clear or certain. This article has laid bare the precarious liability of doctors when volunteering assistance in mid-flight emergencies. The prospect of being sued by air passengers has been shown to cause a chilling effect on most medical professionals.²⁵⁸ More disturbingly, legal protection to doctors acting as good Samaritans in the sky is also not clear, certain, complete, consistent or unlimited. The Social Action, Responsibility and Heroism Act, notwithstanding its legislative intentions, may not offer such protection.

Air travel is truly globalised and embraced by most countries but airlines' liability for injuries to air passengers is only truly accepted by some nations. Air travel is at the forefront of transportations using 21st century state-of-the-art technology yet the aviation convention that governs its liability is archaic, backward and dated from the beginning of 20th century. Plaudits to the industry's forefathers for establishing the WC but no kudos to their successors for not ratifying the MC that provides modern and comprehensive regulations. British courts have persistently and consistently upheld the intention of the WC to protect the airline industry from collapsing, often tipping the scale of balance between the interests of the industry and the interests of air passengers heavily towards the former. Aviation law needs to be sculpted to be consistent not only with intent, but also with the changing needs of those whom they govern, both for the doctors acting as good Samaritans in the sky and air passengers suffering injuries from airlines' negligence. The current state of affairs on doctors' liability and the associated medico-legal issues in mid-flight emergencies need improved clarity. The international aviation community needs to

respond to the needs for reforms in these areas and bring closure to the existing uncertainties and deficiencies. It is also time to recalibrate the scale to balance fairly between promoting growth of airlines industry and protecting passengers from injuries during air travel. By legislating to impose liability and obligations on airliners as outlined in the reform section, the industry would then have to step forward to make some necessary changes. These changes would protect the safety and health of passengers which would subsequently lead to more passengers feeling safe and using air travel, furthering a more prosperous industry. By doing so, the objective of the WC can be readily and rightly attained writ large without favouring or upsetting the industry or their passengers.

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References

- 1 International Air Transport Association, *World Air Transport Statistics WATS* (IATA WATS 59th edn, 2015)
- 2 World Medical Association, *WMA Resolution on Medical Assistance in Air Travel* (WMA 57th General Assembly, 2006)
- 3 JK.Alexander, 'Coronary problems associated with altitude and air travel', *Cardiol Clin*, 13 (1995), pp. 271-8; H.Gong, 'Air travel and oxygen therapy in cardiopulmonary patients', *Chest*, 101 (1992), pp.1104-13
- 4 World Medical Association, *WMA Resolution on Medical Assistance in Air Travel* (WMA 57th General Assembly, 2006)
- 5 Op. cit.
- 6 R.Cocks, M.Liew, 'Commercial aviation in-flight emergencies and the physician', *Emerg Med Australas*, 19 (2007), pp.1–8; RL.Koenig, 'US domestic air carriers experienced major increase in in-flight medical emergency rate', *Cabin Crew Safety*, 32 (2)(1997), pp.1–6; E.Donaldson, J.Pearn, 'First aid in the air', *Aust NZ J Surg*, 66 (1996), pp.431-4; HM.Han, DH.Chae, JH.Kim, 'In-flight medical emergencies in civil airline', *Aviat Space Environ Med*, 71(2000), p.330; T.Goodwin, 'In-flight medical emergencies: an overview', *BMJ*, 321 (2000), pp.1338–41; N.Dowdall, 'Is there a doctor on the aircraft? Top 10 in-flight medical emergencies', *BMJ*, 321 (2000), pp.1336–1337.
- 7 Shepherd, Macpherson, Edwards, 'In-flight emergencies: playing The Good Samaritan', *J Royal Soc Med*, 99 (2006), pp.628-631.
- 8 CA.DeJohn, SJ.Veronneau, AM.Wolbrink et al, 'The evaluation of in-flight medical care aboard selected U.S. air carriers: 1996 to 1997. Washington, D.C.: Federal Aviation

Administration, Office of Aviation Medicine, 2000. (Technical report no.

DOT/FAA/AM-0013); [http://www.themdu.com/press-centre/press-releases/is-there-a-](http://www.themdu.com/press-centre/press-releases/is-there-a-doctor-in-the-house-mdu-survey-reveals-many-medics-act-as-good-samaritans#sthash.vyYCnihU.dpuf)

[doctor-in-the-house-mdu-survey-reveals-many-medics-act-as-good-](http://www.themdu.com/press-centre/press-releases/is-there-a-doctor-in-the-house-mdu-survey-reveals-many-medics-act-as-good-samaritans#sthash.vyYCnihU.dpuf)

[samaritans#sthash.vyYCnihU.dpuf](http://www.themdu.com/press-centre/press-releases/is-there-a-doctor-in-the-house-mdu-survey-reveals-many-medics-act-as-good-samaritans#sthash.vyYCnihU.dpuf)/MDU, 'Is there a doctor in the house? MDU survey reveals many medics act as Good Samaritans'

9 Katzer, Duong, Weber, Memmer, Buchanan, 'Management of in-flight medical emergencies: are senior medical students prepared to respond to this community need?', *West J Emerg Med*, 15 (2014), pp.925–9

10 The Social Action, Responsibility and Heroism Act 2015. This Act will be analysed later in the article.

11 Thibeault, Evans, 'AsMA Medical Guidelines for Air Travel: Reported In-Flight Medical Events and Death', *Aerosp Med Hum Perform*, 86(6) (2015), p.571

12 [https://www.yahoo.com/news/passenger-dies-aboard-dubai-bound-qantas-flight-](https://www.yahoo.com/news/passenger-dies-aboard-dubai-bound-qantas-flight-090020049.html)

[090020049.html](https://www.yahoo.com/news/passenger-dies-aboard-dubai-bound-qantas-flight-090020049.html)/Sydney AFP, 'Passenger dies aboard Dubai-bound Qantas flight';

<http://news.sky.com/story/1384411/passenger-dies-on-flight-from-heathrow-to-us>/Sky news, 'Passenger Dies On Flight From Heathrow To US'

13 EF.Delaune, RH.Lucas, P.Illig, 'In-flight medical events and aircraft diversions: one airline's experience', *Aviat Space Environ Med*, 74(1) (2003), pp.62 – 68; KKC Hung, RA.Cocks, WK.Poon, EYY.Chan, TH.Rainer, CA.Graham, 'Medical volunteers in commercial flight medical diversions', *Aviat Space Environ Med*, 84(5) (2013), pp.491 – 497; DC.Peterson, C.Martin-Gill, F.Guyette, AZ.Tobias, CE.McCarthy et al, 'Outcome of medical emergencies on commercial airline flights', *N Engl J Med*, 368(22) (2013), pp.2075 – 2083

14 World Medical Association, *WMA Resolution on Medical Assistance in Air Travel* (WMA 57th General Assembly, 2006)

15 Bartsch, *International Aviation Law: A Practical Guide* (Surrey, Ashgate, 2012), p3.

16 such as the introduction of jet engines

17 where aviation case laws are more developed due to higher number of litigations

18 despite the recent EU membership referendum, at present the UK remains a member of the EU where EU law is supreme

19 Gendreau, DeJohn, 'Responding to medical events during commercial airline flights', *N Engl J Med*, 346 (2002), pp.1067–1073

20 PH.Mahony, JA.Myers, PD.Larsen, DMC.Powell, RF.Griffiths, 'Symptom-based categorization of in-flight passenger medical incidents', *Aviat Space Environ Med*, 82 (12)(2011), pp.1131 – 1137; KJ.Ruskin, 'In-flight medical emergencies: time for a registry', *Crit Care*, 13 (1) (2009), p.121

21 Peterson, 'Outcome medical emergencies airline flights', pp.2075-2083; Hung, 'Medical volunteers flight diversions', pp.491 – 497; Delaune, 'In-flight medical events and aircraft diversions', pp.62 – 68; JM.Lyznicki, MA.Williams, SD.Dietchman, JP.Howe, 'In-flight medical emergencies', *Aviat Space Environ Med*, 71(8) (2000), pp. 832–8; Dowdall, 'Is there a doctor on the aircraft?', pp 1336-1337; M.Sand, FG.Bechara, D.Sand et al, 'Surgical and medical emergencies on board European aircraft: a retrospective study of 10,189 cases', *Crit Care*, 13 (2009), p.R3; Cocks, 'Commercial aviation emergencies and the physician', pp.1–8; Graf, Stuben, Pump, 'In-Flight Medical Emergencies', *Dtsch Arztebl Int*, 109(37) (2012), pp.591–602; C.Faber, 'Urgences medicales a bord: underoutement pour 20.000 vols' (2004) Congres Hebdomadaire Quotidien

du Medecin; 7482, 15; RO.Cummins, JA.Schubach, 'Frequency and types of medical emergencies among commercial air travellers', *JAMA*, 261 (1989), p.12959; C.Speizer, CJ.Rennie, H.Breton, 'Prevalence of in-flight medical emergencies on commercial airlines', *Ann Emerg Med*, 18 (1989), pp. 26-9; House of Lords Select Committee on Science and Technology, *Air travel and health: fifth report* (House of Lords, 2000); DeJohn, '1996 to 1997', Technical report no. DOT/FAA/AM-0013.

22 Peterson, 'Outcome emergencies commercial flights', pp. 2075 – 2083; Sand, '10,189 cases', p.R3; S.Baltsezak, 'Clinic in the air? A retrospective study of medical emergency calls from a major international airline', *J Travel Med*, 15(6) (2008), pp. 391-394; A.Qureshi, KM.Porter, 'Emergencies in the Air', *Emerg Med J*, 22 (2005), pp. 658-659; Thibeault, 'AsMA Medical Guidelines', p571

23 The final decision to divert flight rests with the captain. The captain and air crew have authority to ignore medical recommendations from a passenger doctor who volunteers assistance as a good Samaritan. Most airliners have contracts with 24-hour ground-to-air medical services for medical advice on in-flight emergencies and the decision to divert flight is usually made in consultation with these ground-based aviation medical specialists (IATA, *Medical Manual* (IATA 7th edn, 2006); Bukowski, Richards, 'Commercial airline in-flight emergency: medical student responses and review of medicolegal issues', *J Emerg Med*, 50(1) (2015), pp.74-78; Chandra, Conry, 'In-flight medical emergencies', *W J Emerg Med*, 14(5) (2013), pp.499-504

24 British Heart Foundation, *CVD statistics – UK Factsheet* (BHF, 29 February 2016)

25 Larsen, Eisenberg, Cummins, Hallstrom, 'Predicting survival from out-of-hospital cardiac arrest a graphic model', *Ann Emerg Med*, 22 (1993), pp.1652-1658; Winkle, 'The

effectiveness and cost effectiveness of public-access defibrillation', *Clin Cardiol*; 33(7) (2010), pp.396–399

26 Page, Joglar, Kowal et al, 'Use of AEDs by a US airline', *N Eng J Med*, 343 (2000), pp.1210-1216

27 Groeneveld, Kwong, Liu et al, 'Cost-effectiveness of automated external defibrillators on airlines', *JAMA*, 286(12) (2001), pp.1482-9

28 <http://www.house.gov/transportation/aviation/06-20-00/06-20-00memo.html>/House Subcommittee on Aviation, *Hearing on FAA implementation of the Aviation Medical Assistance Act of 1998* (106th Cong 2nd sess, 2000)

29 FAA, *Emergency medical equipment* 66 *Federal Register* 19028 (FAA, 2001)

30 House of Lords Select Committee on Science and Technology, *Air travel and health: fifth report* (House of Lords, 2000)

31 Commercial aircrafts with more than 30 passengers and flight time of more than 60 minutes from the nearest airport with medical support: JAR-OPS 1.755

32 http://www.caa.co.uk/Passengers/Before-you-fly/Am_I-fit-to-fly/Health-information-for-passengers/Passenger-health_FAQs-The-aircraft-cabin-your-health-and-comfort/ CAA, 'Passenger health FAQ The aircraft cabin your health and comfort: Why isn't it compulsory for airlines to carry a defibrillator on an aircraft?'

33 Aviation law is, by application, considered to be international aviation law. This has been expressed by the courts as far back as in 1961 in *Airlines System, Inc v County of Los Angeles*, 56 Cal 2d 11 (1961): 'as the vessel which sails the sea is subject to admiralty law, airplanes flying international skies are subject to all manner of international air law.'

34 Bartsch, *International Aviation Law*, p14

35 Op. cit, p.14

36 Op. cit, p.14

37 Convention for the Unification of Certain Rules Relating to International Carriage by Air 1929 or Warsaw Convention 1929

38

http://www.icao.int/secretariat/postalhistory/the_warsaw_system_on_air_carriers_liability.htm/ ICAO, 'the Warsaw System on air carriers liability'

39 Op. cit.

40 Op. cit.

41 Convention for the Unification of Certain Rules for International Carriage by Air 1999 (Montreal Convention 1999)

42 Jackson, *Medical Law: Text cases and materials* (Oxford, OUP, 2010), p.103

43 Graf, 'In-Flight Emergencies', pp.591–602

44 with the exception of Quebec (R.Drummond, A.J.Drummond, 'On a wing and a prayer: medical emergencies on board commercial aircraft', *Can J Emerg Med*, 4 (2002), pp.276–80)

45 Goodwin, 'In-flight medical emergencies', pp.1338–41

46 *Yuen Kun Yeu v AG of Hong Kong* [1988] 1 AC 175; *Stovin v Wise* [1996] 3 WLR 388

47 *Capital and Counties plc v. Hampshire CC* [1997] All ER 865

48 Op. cit (LJ Stuart-Smith)

49 Op. cit

50 In effect, the Caparo test to impose a duty of care is not applicable in emergencies (*Caparo Industries Plc v Dickman* [1990] 2 A.C. 605 at 606)

51 <http://guides.library.jhu.edu/c.php?g=202502&p=1335759/> Johns Hopkins University Sheridan Libraries, 'Hippocratic oath, modern version'

52 GMC, *Good Medical Practice* (GMC, 2013) para 26; the term 'must' is interpreted in the guidance as an overriding duty or principle.

53 BMA, *Medical Ethics Today* (Oxford, Wiley-Blackwell, 2012) p.642

54 World Medical Association, *International Code of Medical Ethics* (WMA, 2006): 'A physician shall give emergency care as a humanitarian duty unless he or she is assured that others are willing and able to give such care.'

55 Despite the Court of Appeal's obiter in *Capital and Counties plc v. Hampshire CC* that a duty of care does not exist in emergencies, until a test case is brought for ruling, at present, it seems that doctors have an ethical but not a legal duty to assist in emergencies including emergencies occurring in the sky.

56 AA.Noel, 'To the Editor-Medical Events during Airline Flights', *N Engl J Med*, 347 (2002), pp.535-537

57 on the basis of good Samaritan protection

58 The common law position is that a duty of care is imposed upon the doctor once she has assumed responsibility for the patient's care (Jackson, *Medical Law*, p.104)

59 *Bolam v Friern Hospital Management Committee* [1957] WLR 582

60 *Bolitho v City & Hackney HA* [1998] AC 232

61 a doctor is not guilty of negligence if he has acted in accordance with a practice accepted as proper by a responsible body of medical men skilled in that particular art (Op. cit (McNair J); Op. cit (Lord Browne-Wilkinson).

62 *Bolam v Friern Hospital Management Committee* [1957] WLR 582

63 *Stockdale v Nicholls* [1993] 4 Med LR 190

64 *Defreitas v O'Brien* [1993] 4 Med LR 281

65 *Wilsher v Essex AHA* [1987] 1 QB 730; A junior doctor must demonstrate the same standard of skills as of a more experienced senior doctor.

66 WA.Wallace, 'Managing in flight emergencies', *BMJ*, 311 (1995), p.1508

67 Professor of orthopaedic and accident surgery

68 also with a urinary catheter, an Evian bottle, a sellotape and a bottle of brandy (Wallace, 'Managing emergencies', p.1508)

69 Op. cit. p.1508

70 At present it is not known whether doctors performing procedure outside their medical competence in emergency cases in order to save passenger's life, would amount to a breach of duty or pass muster under the Bolam test.

71 Herring, *Medical Law and Ethics* (Oxford, OUP, 2014), p.111

72 *Wilsher v Essex AHA* [1987] 1 QB 730

73 *Knight v Home Office* [1990] 3 All ER 237; *Brooks v Home Office* [1999] 2 FLR 33 QBD; *Bull v Devon AHA* [1993] 4 Med LR 117 (CA)

74 Medical history-taking might be difficult due to a lack of common language (A.Tonks, 'Cabin fever', *BMJ*, 336(2008), pp.584–6) because of the diverse nationalities of air passengers. Physical examination is limited due to confined space, suboptimal lighting, vibrations and ambient noise inside airplane cabin. Inasmuch as the noise, stethoscopic examination of the heart, lungs, or abdomen is nearly impossible. Even the most experienced doctors are likely to be challenged under the circumstances in mid-air.

75 Causation is normally determined on the balance of probabilities (*Gregg v Scott* [2005] UKHL 2; *Fairchild v Glenhaven Funeral Services* [2002] UKHL 22), that is, the courts must be satisfied that it is more likely than not that the injuries would have been avoided if the doctor had not been negligent.

76 *Gregg v Scott* [2005] UKHL 2; *Fairchild v Glenhaven Funeral Services* [2002] UKHL 22

77 Herring, *Medical Law and Ethics*, p.116

78 Social Action, Responsibility and Heroism Act 2015

79 Social Action, Responsibility and Heroism Act 2015 s1

80 Social Action, Responsibility and Heroism Act 2015 s2

81 Social Action, Responsibility and Heroism Act 2015 s3

82 Social Action, Responsibility and Heroism Act 2015 s4

83 House of Common, *Hansard* (House of Common, 21 July 2014) column 1193

84 Social Action, Responsibility and Heroism Act 2015

85 Social Action, Responsibility and Heroism Act 2015 s2

86 Okoye, 'The UK Social Action, Responsibility and Heroism (SARAH) Act 2015 and corporate social responsibility: potential connections', *ICCLR*, 26(12) (2015), pp.373-376

87 <https://www.fbu.org.uk/news/2015/10/02/british-public-value-firefighters-more-police-scientists-and-engineers/YouGov> 2015 Survey, 'Three quarters of the public think teachers contribute greatly to society's wellbeing, poll shows'

88 Social Action, Responsibility and Heroism Act 2015 s3

89 Feinberg, 'Action and Responsibility' in M. Black (ed), *Philosophy in America* (London Allen & Unwin 1965) pp.134-160

90 Op. cit. pp.134-160

91 *Bolam v Friern Hospital Management Committee* [1957] WLR 582

92 Social Action, Responsibility and Heroism Act 2015 s4

93 *Videan and Another v British Transport Commission* [1963] 2 Q.B. 650

94 *Herrington v British Railways Board* [1971] 2 W.L.R. 477

95 <http://www.news.bbc.co.uk/1/hi/7832439.htm>/BBC News, 'Pilot hailed for 'Hudson miracle'

96 GMC, *Good Medical Practice* (GMC, 2013) para 26

97 Greenberg, 'Social action responsibility and heroism-insight' (Westlaw UK, 23 March 2015)

98 House of Common, *Hansard* (House of Common, 21 July 2014) column 1193

99 Warsaw Convention 1929 art 28

100 Montreal Convention 1999

101 Montreal Convention 1999 art 33 para 2; the nationality of passengers is irrelevant

102 The Carriage by Air Act 1931; the Carriage by Air Act 1961

103 Tokyo Convention 1969 art 1

104 Convention on Offences and Certain Other Acts Committed on Board Aircraft (Tokyo Convention 1969)

105 Tokyo Convention 1969 art 3

106

http://www.icao.int/secretariat/postalhistory/legal_instruments_related_to_aviation_security.htm/ ICAO, 'Legal Instruments related to Aviation Security'

107 Convention on Offences and Certain Other Acts Committed on Board Aircraft (Tokyo Convention 1969)

108 Tokyo Convention 1969 art 1

109

http://www.icao.int/secretariat/postalhistory/legal_instruments_related_to_aviation_security.htm/ ICAO, 'Legal Instruments related to Aviation Security'

110 Warsaw Convention art 24(2); Montreal Convention art 29

111 This was unequivocally observed by Lord Hope in the House of Lords judgment in *Sidhu v BA*: '...the code [of the Convention] is intended to be uniform and to be exclusive also of any resort to the rules of domestic law'; *Christopher Stott v Thomas Cook Tour Operators* [2014] UKSC 15; *Abnett v British Airways Plc* [1997] AC 430; *El Al Israel Airlines Ltd v Tseng* 525 US 155 (1999)

112 *Christopher Stott v Thomas Cook Tour Operators* [2014] UKSC 15

113 the Supreme Court held that UK and European Union disability legislations are precluded by Montreal Convention, even though the case had the backing of the Equality and Human Rights Commission with additional support from the Secretary of State for Transport.

114 Regulation (EC) No 889/2002 Notice Air Carrier Liability for Passengers and Their Baggage art 3(1)

115 Terms and Conditions of Carriage in the Sita Air Dornier D228 (9N-AHA)

116 such as article 21 of the Nigerian Civil Aviation (Repeal and Re-Enactment) Act 2006

117 ICAO, *Contracting Parties to the Convention for the Unification of Certain Rules relating to International Carriage by Air signed at Warsaw on 12th October 1929* (ICAO, 1929)

118 <http://www.icao.int/about-icao/Pages/member-states.aspx/> ICAO, 'Member States'

119 instanced by Thailand, Jamaica and so forth

120 ICAO, *Contracting Parties to the Convention for the Unification of Certain Rules for International Carriage by Air done at Montreal on 28 May 1999* (ICAO, 1999)

121 Montreal Convention 1999 pre-amble; Montreal Convention 1999 art55

122 Warsaw Convention 1929 pre-amble; Montreal Convention 1999 pre-amble

123 Harvey, 'Legislative Comment The Warsaw Convention', *Quantum*, 5(Sep) (2002), pp.1-4

124 Tokyo Convention 1969 art 3

125 Tokyo Convention 1969 art 4

126 French Penal Code 1994 art 113-4

127 French Penal Code 1994 art 223

128 French Deontology Code art 9

129 French Penal Code 1994 art 223

130 Op. cit

131 French Penal Code 1994 art 223-6

132 without regard to whether the danger is hypothetical, whether the assistance might be useful, whether the doctor is competent, qualified, working or retired (Dedouit, Tournel et al, 'Medical liabilities of the French physician passenger during a commercial air flight', *Med Sci Law*, 47(1) (2007), pp.45-50).

133 French Penal Code 1994 art 113-1

134 Brandon, Ruddenklau, Moodie et al, 'Responding to in-flight requests for medical assistance', *NZMJ*, 115 (2002), p.1165

135 Op. cit. p.1165

136 *Capital and Counties Plc v Hampshire County Council* [1997] QB 1004

137 Shepherd, 'playing The Good Samaritan', pp.628-631.

138 Prior to that in 2002 Air France, Swiss Air, KLM and SAS would treat good Samaritan doctor as 'occasional employee', thence providing cover under company's insurance policy (V.Hedouin, M.Lallemand, E.Revuelta et al, 'Medical responsibility and air transport', *Med Law*, 17 (1998), pp.503-6).

139 World Medical Association, *WMA Resolution on Medical Assistance in Air Travel* (WMA 57th General Assembly, 2006)

140 <http://www.mddus.com/media-centre/press-releases/2014/november/doctors-protected-for-good-samaritan-acts/> Press Release, 'Doctors protected for Good Samaritan acts'

141 MPS, *CaseBook volume 5 no 2* (MPS, 2012)

142 The Aviation Medical Assistance Act 1998

143 The Aviation Medical Assistance Act 1998 s5

144 The Aviation Medical Assistance Act 1998 s6(3)

145 The primary objective of the Act is said to encourage assistance of medical professionals in emergencies that arise in airline cabins by removing their consternations of being sued by air passengers (PH.Stewart, WS.Agin, SP.Douglas, 'What does the law

say to Good Samaritans? A review of Good Samaritan statutes in 50 states and on US airlines', *Chest*, 143(2013), pp.1774–83).

146 L.Haberfield, 'Lowns v Woods and the Duty to Rescue', *Tort Law Review*, 6 (1998), pp. 56-80

147 Civil Laws (Wrongs) Act 2002; Civil Liability Act 2002 (NSW); Personal Injuries (Liabilities and Damages) Act (NT); Civil Liability Act 1936 (SA); Civil Liability Act 2002 (Tas); Wrong Act 1958 (Vic); Civil Liability Act 2002 (WA)

148 The Civil Law (Miscellaneous Provisions) Act of 2011

149 The Civil Law (Miscellaneous Provisions) Act of 2011 Part IVA 51D (1)

150 The Civil Law (Miscellaneous Provisions) Act of 2011 Part IVA 51D (2)

151 The Volunteer Liability Act 2000

152 The Aviation Medical Assistance Act 1998 s5

153 The Aviation Medical Assistance Act 1998 s6

154 Over 40 American States recognise medical licences from Canada

155 http://www.ama-assn.org/ama/pub/about-ama/our-people/member-groups-sections/international-medical-graduates/frequently-asked-questions/faqs-about-practising-medicine.page?/ American Medical Association, 'IMGs in Medicine and other FAQs'; 'Siddhartha Yadav: A foreign medical graduate's path to US residency' (*BMJ Blog*, 3 September 2013)

156 US nationals graduated outside America are not medically recognised by US Medical Licensing Boards and just like international medical graduates, they have to undergo the mammoth process of obtaining medical license

157 The Aviation Medical Assistance Act 1998; The Volunteer Liability Act 2000

158 *Wilson v Brett* (1843) 11 M & W 113

159 In the UK, the concept of gross negligence has been disapproved as far back as in 1843 when Baron Rolfe remarked ‘...no difference between negligence and gross negligence; that it was the same thing, with the addition of a vituperative epithet.’ In the seminal case of *Armitage v Nurse*, Lord Justice Millet affirmed the courts’ general reluctance of approving gross negligence: ‘it would be very surprising if our law drew the line between liability for ordinary negligence and liability for gross negligence. In this respect English law differs from civil law systems...’

160 *R v Adomako* [1995] 1 AC 171; *Misra & Srivastava* [2004] EWCA Crim 2375

161 Clarkson, Keating, Cunningham, *Clarkson and Keating Criminal Law* (London, Sweet & Maxwell, 2014) p.650

162 Gradwell, Rainford, *Ernsting’s Aviation and Space Medicine* (Florida, CRC Press, 2016) p.541

163 <https://www.gov.uk/drink-drive-limit/> UK Gov, ‘The drink drive limit’

164 Under the Road Traffic Act 1998, careless driving under the influence of alcohol may be penalised for up to 14 years of imprisonment.

165 British National Formulary (Pharmaceutical Press March 2016)

166 <http://www.caa.co.uk/default.aspx?catid=2499&pagetype=90&pageid=13769/CAA>, ‘Guidance for medical certification of aircrew’

167 Piriton is known to cause drowsiness or sedation. Consumers are normally advised by manufacturers to refrain from driving or operating machinery after its consumption. (CAA, ‘Medication, alcohol and flying’ (Aeronautical Information Circular 99/2004).

168 Goode, 'Are pilots at risk of accidents due to fatigue?', *J Safety Research*, 34 (2003), pp.309-13

169 Clarke, 'The Convention of the contract for the International Carriage of Goods by Road 1956: wilful misconduct again and again', *JBL*, 2 (2008), pp.184-190

170 The 2009 crash of a Continental Connection flight; the 2004 crash of Corporate Airlines flight 5966; the 1997 crash of Korean Air flight 801; the 1985 near crash of China Airlines flight 006, the 1999 mishap involving American Airlines Flight 1420

171 <http://www.caa.co.uk/Commercial-industry/Airlines/Flight-time-limitations/EASA-Flight-Time-Limitations/CAA>, 'EASA Flight Time Limitations'

172 [http://www.gov.uk/government/collections/drivers-hours-rules-and-guidance/UK Gov](http://www.gov.uk/government/collections/drivers-hours-rules-and-guidance/UK-Gov) 'Driver's hours rules and guidance'

173 Miller, 'Doctors' health matters', *BMJ*, 337 (2008), p.a2527

174 The Aviation Medical Assistance Act 1998; The Volunteer Liability Act 2000

175 *Forder v Great Western Railway Co* [1905] 2 K.B. 532 at 535-536; *TNT Global v Denfleet International Ltd* [2007] EWCA Civ 405

176 *TNT Global v Denfleet International Ltd* [2007] EWCA Civ 405

177 Op. cit at [16] [32]

178 Op. cit at [30]

179 Op. cit at [16]

180 Clarke, '1956: wilful misconduct again', pp.184-190

181 Warsaw Convention, Montreal Convention art 17

182 It is complex from a technical perspective with identification of the chain of events that caused the injuries; multiple causes of action available such as aviation Conventions,

common law negligence; multiple applicable jurisdictions such as the domicile country of airline; domicile country of the passenger; place of the accident; country of flight departure or destination; domicile country of the parties that contributed to the injury.

183 The centrepiece of airlines' liability is article 17 of Warsaw and Montreal Conventions

184 Article 17.1 provides that 'the carrier is liable for damage sustained in case of death or bodily injury of a passenger upon condition only that the accident which caused the death or injury took place on board the aircraft or in the course of any of the operations of embarking or disembarking'

185 Finch & Fafinski, *Legal Skills* (Oxford, OUP, 2007), p74

186 *Chaudhari v British Airways Plc*, Times, May 7, 1997 [443] (Leggatt LJ); *Sidhu v British Airways Plc* [1997] 2 WLR 26 (Hope L); *In re Deep Vein Thrombosis and Air Travel Group Litigation* [2006] 1 AC 495; *Grein v Imperial Airways Ltd* [1937] 1 KB 50 (Greene LJ); *Fothergill v Monarch Airlines Ltd* [1981] AC 251 (Lord Diplock)

187 *Fothergill v Monarch Airlines Ltd* [1981] AC 251 (Lord Diplock)

188 *Morris v KLM Royal Dutch Airlines* [2002] 2 AC 628: The courts recognise that Warsaw Convention was originally drafted in French and was not drafted to be construed exclusively by English judges (*Barclay v British Airways plc* [2010] QB 187; *King v Bristow Helicopters Ltd* [2002] UKHL 7; *Adatia v Air Canada* [1992] P.I.Q.R. P238) As such, the courts adopt the stance that the language of the Convention should not be interpreted by reference to English domestic law principles, domestic rules of interpretation or according to the idiom of English law.

189 where there are more litigation cases against airliners.

190 *Air France v Saks* (1985) 1 S&B Av R VII/165; *Hipolito v Northwest Airlines Inc*, No. 00-2381, 2001 WL 861984 (4th Cir July 31, 2001)

191 *Air France v Saks* (1985) 1 S&B Av R VII/165

192 In that case, the claimant lost her hearing during a normal landing. US Supreme Court held that the loss of her hearing was the result of her own ‘internal reaction to the usual, normal and expected operation of the aircraft’s pressurisation system’ and her claim was dismissed.

193 *Krys v. Lufthansa German Airlines* 119 F.3d 1515 (11th Cir. 1997); *Fischer v. Northwest Airlines, Inc.* 623 F. Supp. 1064 (N.D. Ill. 1985)

194 Op. cit

195 Op. cit

196 Op. cit

197 In *Tandon v. United Airlines*, 926 F. Supp. 366 (S.D.N.Y. 1996): the failure by the air carrier to provide medical assistance to a mid-flight heart attack was held not constituting ‘an external unusual event’ for which the airliner could be liable. In *McDowell v Continental Airlines*, the airline was also deemed not liable for the continuation of the flight to its original scheduled destination after an in-flight emergency.

198 *Olympic Airways v Husain*, 2004 US Lexis 1620 (2004)

199 Op. cit at 1 (1228)

200 Op. cit at 2 (1227)

201 DiGiacomo, ‘The end of an evolution: from *Air France v Saks* to *Olympic Airways v Husain*—the term accident under article 17 of the Warsaw Convention has come full circle’, *Intl L. Rev.* 16(409) (2004), pp.409-445

202 In *Chaudhari v British Airways*, the Court of Appeal held that the claimant's fall onboard a passenger plane was a result of his pre-existing medical condition (left body paralysis) therefore the injury sustained was not due to 'an accident' within the meaning of Warsaw Convention. In *re DVT and Air Travel Group*, the element of 'an external unexpected event' was re-emphasised as an integral part of the test to determine whether 'an accident' has occurred, thereupon also excluding the onset of deep vein thrombosis (DVT) after flight. In *Barclay v BA*, an injury caused by a slip inside an aircraft was also deemed not 'an accident'.

203 the suffering of in-flight medical emergencies *per se*, instanced by asthma or heart attack, is not deemed 'an injury from an accident' for which airlines can be held liable.

204 *Miller v. Cont'l Airlines, Inc.*, 260 F. Supp. 2d 931 (N.D. Cal. 2003); *Wylie v. American Airlines, Inc.*, 260 F Supp. 2d 931 (N.D. Cal. 2003); *Blansett v. Continental Airlines*, 246 F. Supp. 2d 596 (S.D. Tex. 2002).

205 The courts have ruled that these medical events *per se* do not constitute 'external events that happen independently of passengers,' thereby not amounting to 'an accident' in pursuant to Warsaw or Montreal Convention.

206 *Barclay v British Airways plc* [2010] QB 187 (Laws LJ)

207 *Woodward v Mayor of Hastings* [1945] KB 174

208 Occupiers' Liability Act 1957 s2(2)

209 Occupiers' Liability Act 1957 s1(3)(a)

210 Harvey, 'Warsaw Convention', pp.1-4

211 At that time, aeroplanes were not generally regarded as a safe and competent way to travel.

212 Harvey, 'Warsaw Convention', pp.1-4

213 International Air Transport Association, *World Air Transport Statistics WATS* (IATA WATS 59th edn, 2015)

214 International Air Transport Association, *World Air Transport Statistics WATS* (IATA WATS 59th edn, 2015)

215 Shepherd, 'playing The Good Samaritan', pp.628-631.

216 in-flight meals or refreshments in some short-haul flights are no longer complimentary

217 Air passengers are also absorbing the costs of printing boarding passes; check-in baggage tags and so forth

218 Calder, 'Ryanair unveils its latest plan to save money: remove toilets from the plane' *The Independent*, October 11, 2011

219 Clancy, 'Ryanair eyes more business travellers but fewer toilets' *The Telegraph*, September 16, 2014

220 Calder, 'Ryanair unveils its latest plan to save money: remove toilets from the plane' *The Independent*, October 11, 2011

221 Calder, 'Ryanair unveils its latest plan to save money: remove toilets from the plane' *The Independent*, October 11, 2011

222 Calder, 'EasyJet overbooking thousands of peak-season flights-and flouting EU rules on offloaded passengers' *The Independent*, July 22, 2015

223 Calder, 'EasyJet overbooking thousands of peak-season flights-and flouting EU rules on offloaded passengers' *The Independent*, July 22, 2015

224 DiGiacomo, 'The end of an evolution', pp.409-445

225 Op.cit. pp.409-445

226 a practice that was continued until World War II

227 cabin crews in Virgin Atlantic Airways have one week of training in first aid, followed by annual refresher training

228 Warsaw & Montreal Conventions art 17

229 *Abnett v British Airways Plc* [1997] AC 430; *Barclay v British Airways Plc* [2010] QB 187; *Chaudhari v British Airways Plc*, Times, May 7, 1997; *Christopher Stott v Thomas Cook Tour Operators* [2014] UKSC 15; *In re Deep Vein Thrombosis and Air Travel Group Litigation* [2006] 1 AC 495; *Fothergill v Monarch Airlines Ltd* [1981] AC 251; *Morris v KLM Royal Dutch Airlines* [2002] 2 AC 628; *Sidhu v British Airways Plc* [1997] 2 WLR 26

230 Warsaw & Montreal Conventions art 17

231 *Day v TransWorld Airlines Inc* 528 F. 2d 31 (2d Circ 1975); *Evangelinos v Trans World Airlines Inc* 550 F. 3d 152 (3rd Circ., 1976); *Guaridenex de La Cruz v Dominicana de Aviacion* 22 Avi. Cas. 17, 639 (S.D.N.Y. 1989)

232 *Adatia v Air Canada* [1992] P.I.Q.R. P238: the process of embarkation was deemed to include the process of checking-in; passage through security and passport control; going to the boarding gate and proceeding thereafter to embark (*Phillips v Air New Zealand Ltd* [2002] CLC 1199 (Morison J). The process of disembarkation was held to have ended when passengers are inside the terminal wherein airlines have no control over them.

233 World Medical Association, *WMA Resolution on Medical Assistance in Air Travel* (WMA 57th General Assembly, 2006)

234 <http://www.themdu.com/press-centre/press-releases/is-there-a-doctor-in-the-house-mdu-survey-reveals-many-medics-act-as-good-samaritans#sthash.vyYCnihU.dpuf>MDU,

‘Is there a doctor in the house? MDU survey reveals many medics act as Good

Samaritans’

235 World Medical Association, *WMA Resolution on Medical Assistance in Air Travel* (WMA 57th General Assembly, 2006).

236 The Royal College of Physicians, *Hospitals on the edge? Time for action*. (The Royal College of Physicians, 2012)

237 Choong, Barrett, ‘The Medical Practitioners Tribunal Service: One Year On’, *Lex Medicinae* (2014), pp. 83-94

238 D.Casey, K.Choong, ‘Suicide whilst under GMC's fitness to practise investigation: Were those deaths preventable?’, *J Forensic Leg Med*, 37 (2016), pp.22-27

239 J.Firth-Cozens, ‘A perspective on stress and depression’ in J.Cox, J.King, A.Hutchinson, P.McAvoy (eds), *Understanding doctors' performance* (Radcliffe Publishing 2006)

240 T.Bourne, L.Wynants, M.Peters, C.VanAudenhove, D.Timmerman, B.VanCalster, ‘The impact of complaints procedures on the welfare, health and clinical practise of 7926 doctors in the UK: a cross-sectional survey’, *BMJ Open*, 5(2015), p.e006687

241 Casey, ‘Suicide whilst under GMC’, pp.22-27

242 GMC, *GMC Thresholds* (GMC, Dec 2015)

243 Op. cit

244 Press Release, ‘MDDUS report rise in claims against doctors’ *MDDUS* (Glasgow, 29 October 2013); Duffin, ‘Retired GP faced with legal claim after 40 years as cases jump 15%’ *Pulse* (London, 13 August 2013)

245 Aviation Medical Assistance Act 1998

246 with enforceable liability if the set limit is exceeded.

247 It is also prudent to expressly extend or restrict liability to receipt of gratitude items such as travel vouchers, upgrades or rarely payments, after good Samaritan's assistance.

248 <http://www.icao.int/about-icao/Pages/member-states.aspx/> ICAO, 'Member States'

249 ICAO, *Contracting Parties to the Convention for the Unification of Certain Rules relating to International Carriage by Air signed at Warsaw on 12th October 1929* (ICAO, 1929)

250 ICAO, *Contracting Parties to the Convention for the Unification of Certain Rules for International Carriage by Air done at Montreal on 28 May 1999* (ICAO, 1999)

251 Harvey, 'Warsaw Convention', pp.1-4

252 ICAO, *Contracting Parties to the Convention on offences and certain other acts committed onboard aircraft signed at Tokyo on 14 September 1963* (ICAO, 1963)

253 By Agency, 'Coroner calls on airlines to carry defibrillators after mother-of-two's death' *The Telegraph*, June 16, 2015

254 Op. cit

255 [https://sg.finance.yahoo.com/news/lawsuit-southwest-failed-respond-medical-](https://sg.finance.yahoo.com/news/lawsuit-southwest-failed-respond-medical-191008953.html)

191008953.html/Thanawala, 'Lawsuit: Southwest failed to respond to medical

emergency'; [http://www.theguardian.com/us-news/2015/apr/20/southwest-airlines-](http://www.theguardian.com/us-news/2015/apr/20/southwest-airlines-wrongful-death-lawsuit-richard-ilczyszyn-widow/)

wrongful-death-lawsuit-richard-ilczyszyn-widow/ Associate Press, 'Widow sues

Southwest Airlines over death of financial trader'; Briscoe, 'Wife sues Spirit Airlines, 2

flight attendants in Chicago man's death' *Chicago Tribune*, April 2, 2015;

[http://www.flyertalk.com/articles/widower-sues-american-airlines-over-in-flight-](http://www.flyertalk.com/articles/widower-sues-american-airlines-over-in-flight-death.html)

death.html/Flyertalk, 'Widow Sues American Airlines Over In-Flight Death';

<http://www.news.com.au/travel/travel-updates/emirates-sued-for-letting-passenger-die/story-e6frfq80-1226015794030/NewComAustralia>, 'Emirates airline sued over Carol Wilson's death'; Hanif, 'Family sues Emirates over woman's death' *The National UAE*, March 11, 2011; <http://travel.aol.co.uk/2011/03/09/family-sues-airline-after-it-lets-passenger-die-on-board-fligh/Doherty>, 'Family sues airline after it 'lets passenger die' on board flight'

256 Aviation Medical Aviation Act 1998

257 Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995

258 World Medical Association, *WMA Resolution on Medical Assistance in Air Travel* (WMA 57th General Assembly, 2006)